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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re the Application of: **Masanori AMANO**

Group Art Unit: 1772

Serial Number: 10/765,899

Examiner: **Catherine A. Simone**

Filed: **January 29, 2004**

Confirmation Number: 2604

For: **LAYER FORMING RELIEF**

Attorney Docket Number: **032111**

Customer Number: **38834**

**SUBMISSION OF REVISED APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

October 30, 2006

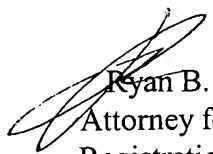
Sir:

Applicants submit herewith a revised Appeal Brief in the above-identified U.S. patent application. This submission is in response to the Notification of Non-Compliant Appeal Brief dated October 25, 2006, and is not a Reply Brief.

A check in the amount of \$500.00 to cover the cost for the Appeal Brief was paid previously on August 3, 2006. If any additional fees are due in connection with this submission, please charge Deposit Account No. 50-2866.

Respectfully submitted,

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**REVISED APPEAL BRIEF FOR THE APPELLANT**

**Ex parte Masanori AMANO et al. (Applicant)**

**LAYER FORMING RELIEF**

Serial Number: 10/765,899

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Appeal No.:

Group Art Unit: 1772

Examiner: Catherine A. Simone

Submitted by:

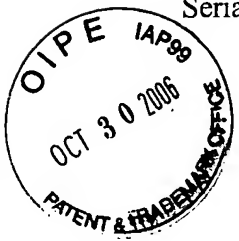
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Date: October 30, 2006



**BRIEF ON APPEAL**

**(I) REAL PARTY IN INTEREST**

The real party in interest is **KOMURA TECH CO., LTD.**, by an assignment recorded in the U. S. Patent and Trademark Office on **January 29, 2004** at Reel **014937**, Frame **0301**.

**(II) RELATED APPEALS AND INTERFERENCES**

There are no other appeals or interferences known to appellant, appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(III) STATUS OF CLAIMS**

Claims 1-4 are pending in the application and are appealed. The appealed claims appear in the Claims Appendix.

**(IV) STATUS OF AMENDMENTS**

No amendments have been filed subsequent to the close of prosecution.

**(V) SUMMARY OF THE CLAIMED SUBJECT MATTER**

Claim 1 is directed to a layer forming relief R1 for transferring and printing an application fluid applied on printing convex portions 1 on a printing object, such as that illustrated in Figures 1, 2(a), and 2(b). The layer forming relief R1 comprises printing convex portions 1 formed as linear strips, adjoining printing convex portions 1 aligned to be parallel with each other with a prescribed space, and a plurality of micro-projections 2, formed into a truncated cone or in a cylinder. The micro-projections 2 are distributed on top faces of each of the printing convex portions 1 so as to form a groove 3 between adjoining micro-projections 2 for retaining the application fluid.

Claim 2 further characterizes the layer forming relief R1 such that the application fluid is an organic luminous substance. The height of the micro-projection 2 is in the range of 2 to 50  $\mu\text{m}$ , the diameter of the top face of the micro-projection 2 is 5  $\mu\text{m}$  or more, the space between the adjoining micro-projections 2 is 7  $\mu\text{m}$  or more, and the number of the micro-projections 2 is in the range of 2 to 30 and are formed so as to be distributed in the width direction of the top face on the printing convex portion 1.

Claim 3 is directed at a layer forming relief R2 for transferring and printing an application fluid applied on top faces of printing convex portions 1 on a printing object, such as that illustrated in Figures 1, 7(a), and 7(b). The layer forming relief R2 comprises printing convex portions 1 formed as linear strips, adjoining printing convex portions 1 aligned to be parallel with each other with a prescribed space, and a plurality of projected micro-strips 12 distributed on the

top faces of each of the printing convex portions 1 so as to form a groove 13 between adjoining micro-strips 12 for retaining the application fluid. The cross section of the projected micro-strips 12 in a direction perpendicular to a longitudinal direction is trapezoidal or rectangular.

Claim 4 further characterizes the layer forming relief R2 such that the application fluid is an organic luminous substance. The height of the projected micro-stripe 12 is in the range of 2 to 55  $\mu\text{m}$ , the width of the top face of the projected micro-stripe 12 is 3.5  $\mu\text{m}$  or more, the space between the adjoining projected micro-strips 12 is 7  $\mu\text{m}$  or more, and the number of the projected micro-strips 12 is in the range of 2 to 33 and are formed so as to be distributed in the width direction of the top face on the printing convex portion 1.

#### **(VI) MAPPING OF INDEPENDENT CLAIMS**

Claim 1. A layer forming relief R1 for transferring and printing an application fluid applied on printing convex portions 1 on a printing object (*e.g.*, page 5, lines 12-16 and Figures 1, 2(a) and 2(b)), the layer forming relief R1 comprising the printing convex portions 1 formed as linear strips, adjoining printing convex portions 1 aligned to be parallel with each other with a prescribed space P (*e.g.*, page 5, lines 16-19), and a plurality of micro-projections 2 (*e.g.*, page 5, line 19-22), formed into a truncated cone or in a cylinder (*e.g.*, page 7, line 16-17), distributed on top faces of each of the printing convex portions 1 so as to form a groove 3 between adjoining micro-projections 2 for retaining the application fluid (*e.g.*, page 5, line 19--22).

Claim 3. A layer forming relief R2 for transferring and printing an application fluid applied on top faces of printing convex portions 1 on a printing object (*e.g.*, page 11, lines 16-17 and Figures 1, 7(a) and 7(b)), the layer forming relief R2 comprising the printing convex portions 1 formed as linear strips, adjoining printing convex portions 1 aligned to be parallel with each other with a prescribed space P (*e.g.*, page 11, lines 18-19), and a plurality of projected micro-strips 12 (*e.g.*, page 11, line 20-21) distributed on the top faces of each of the printing convex portions 1 so as to form a groove 13 between adjoining micro-strips 12 for retaining the application fluid (*e.g.*, page 11, lines 20-21),

wherein a cross section of the projected micro-strips 12 in a direction perpendicular to a longitudinal direction is trapezoidal or rectangular (*e.g.*, page 11, line 25 to page 12, line 3).

#### **(VII) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Whether claims 1-4 are unpatentable under 35 U.S.C. §103(a) over Hasagawa in view of Amano.

#### **(VIII) ARGUMENT**

##### **Discussion of the cited art**

Hasegawa discloses a method for manufacturing an electro-optical device. The method utilizes a coating device 100 which applies a coating liquid 150 onto an anilox roller 130.

Anilox roller 130 then applies the liquid onto letter press 110. On the letter press 110 are projections 111 and recesses 112. See Figure 5.

These projections 111 and recesses 112 are illustrated in detail in Figures 7(a) and 7(b). The projections 111 and recesses 112 extend in parallel with respect to each other, but in a direction oblique to the edge of the letterpress 110. On top of the projections 111, a mesh 119 is formed. This mesh 119 consists of smaller projections which extend the length of projections 111. These smaller projections are triangular in cross-section.

Amano discloses a resin relief printing plate for forming a thin film. As illustrated in Drawing 1(a), the printing plate is a resin relief printing plate 1, upon which printing relief portion 2 is disposed. Printing relief portion 2 includes a central region X, and a peripheral region Y, as illustrated in the cross-section of Drawing 1(b). Drawing 2 illustrates a close-up plan view of the printing relief portion 2, including the boundary between central region X and peripheral region Y. Both central region X and peripheral region Y include projections 3 and channels 4. As illustrated in Figures 3 and 4, the size of the projections 3 increases towards the peripheral region Y, and therefore the depth of the channels 4 decreases towards the peripheral region Y. As illustrated in Drawing 4, the resin printing plate of Amano is used in a similar fashion as that of Hasagawa.

**Claims 1-4 are not unpatentable under 35 U.S.C. §103(a) over Hasagawa in view of Amano.**

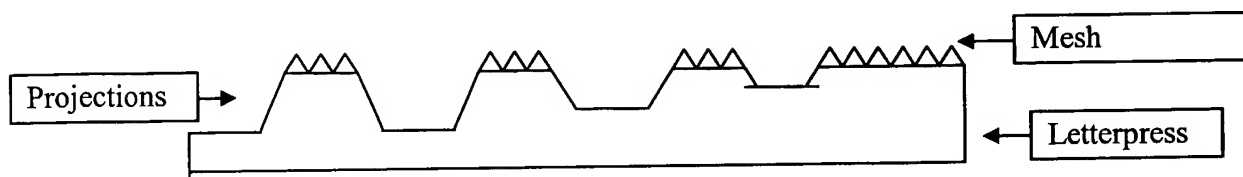
In the Advisory Action dated May 19, 2006, the Examiner states that “Amano was merely cited for suggesting that it is old and well known in the analogous art to have a layer forming relief including micro-projections formed into a truncated cone or cylinder.” Page 3 of the Advisory Action dated May 19, 2006.

In response, Appellants respectfully argue that the Examiner has erred in the comparison of the components of Hasagawa and Amano. Hasagawa discloses a single letterpress 110, with a plurality of projections 111 formed thereon. Projections 111 have a mesh 119 of micro-projections formed thereon, the micro-projections being stripes which are triangular in cross-section. On the other hand, Amano discloses a single square-shaped printing relief portion 2 with series of truncated cone-shaped projections 3 formed thereon. No micro-projections are “distributed on top faces of” projections 3. The resin relief printing plate 1 is merely used in order to attach the printing relief portion 2 to the printing roll 11. Therefore, Appellants respectfully submit that the projections 3 of Amano are not analogous to the mesh 119 of Hasegawa, but are analogous to the projections 111 of Hasegawa, because they are formed on a top face of a single printing relief portion 2.

One having ordinary skill in the art would not have been motivated to combine the teachings of Amano and Hasegawa, since projections 111 of Hasegawa are formed in stripes, while the projections 3 of Amano are formed as truncated cones or cylinders. Further, even there were a motivation to form a printing plate with truncated cone or cylinder projections having a



mesh on their top faces, the combination of Amano and Hasegawa would result in an apparatus with a cross-section as illustrated below:



Such a combination would not read on the present claims. The Examiner relies on Amano in order to teach that it would have been obvious to alter the mesh 119 which is triangular in cross section by replacing it with projections 3 which are truncated cones. However, Applicants respectfully submit that the Examiner's argument is misplaced, since the projections 3 and mesh 119 are not analogous to each other.

Therefore, Applicants respectfully submit that the combination of references does not disclose or suggest microstripes "distributed on the top faces of each of the printing convex portions" and which have a cross section which is "trapezoidal or rectangular," as required by claims 3 and 4.

Additionally, Appellants note that claims 1 and 2 recite micro-projections in the form of a "truncated cone or in a cylinder." As illustrated above, a combination of Hasagawa and Amano would retain the mesh 119 which extends the entire length of the projections 111. Since the mesh 119 extends along the projection 111, it is formed as stripes having a triangular cross-section, not as truncated cones or cylinders. Thus, the combination of references additionally does not disclose or suggest micro-projections formed as a "truncated cone or cylinder" as recited by claims 1 and 2.

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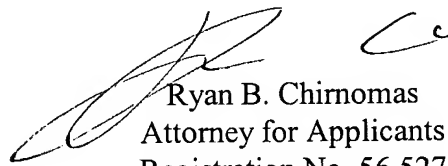
**(IX) CONCLUSION**

For at least the foregoing reasons, the Examiner has failed to raise a prima facie rejection of the claims. The Honorable Board is respectfully requested to reverse the rejection of the Examiner.

If this paper is not timely filed, appellants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to Deposit Account No. 50-2866, along with any other additional fees that may be required with respect to this paper.

Respectfully submitted,

**WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP**



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**(X) CLAIMS APPENDIX**

Claim 1. A layer forming relief for transferring and printing an application fluid applied on printing convex portions on a printing object, the layer forming relief comprising the printing convex portions formed as linear strips, adjoining printing convex portions aligned to be parallel with each other with a prescribed space, and a plurality of micro-projections, formed into a truncated cone or in a cylinder, distributed on top faces of each of the printing convex portions so as to form a groove between adjoining micro-projections for retaining the application fluid.

Claim 2. The layer forming relief according to Claim 1, wherein the application fluid is an organic luminous substance, and the height of the micro-projection is in the range of 2 to 50  $\mu\text{m}$ , the diameter of the top face of the micro-projection is 5  $\mu\text{m}$  or more, the space between the adjoining micro-projections is 7  $\mu\text{m}$  or more, and the number of the micro-projections is in the range of 2 to 30 and is formed so as to be distributed in the width direction of the top face on the printing convex portion.

Claim 3. A layer forming relief for transferring and printing an application fluid applied on top faces of printing convex portions on a printing object, the layer forming relief comprising the printing convex portions formed as linear strips, adjoining printing convex portions aligned to be parallel with each other with a prescribed space, and a plurality of projected micro-stripes distributed on the top faces of each of the printing convex portions so as to form a groove

between adjoining micro-stripes for retaining the application fluid,

wherein a cross section of the projected micro-stripes in a direction perpendicular to a longitudinal direction is trapezoidal or rectangular.

Claim 4. The layer forming relief according to Claim 3, wherein the application fluid is an organic luminous substance, and the height of the projected micro-stripe is in the range of 2 to 55  $\mu\text{m}$ , the width of the top face of the projected micro-stripe is 3.5  $\mu\text{m}$  or more, the space between the adjoining projected micro-stripes is 7  $\mu\text{m}$  or more, and the number of the projected micro-stripes is in the range of 2 to 33 and is formed so as to be distributed in the width direction of the top face on the printing convex portion.

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**(XI) EVIDENCE APPENDIX**

None Presented

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**(XII) RELATED PROCEEDINGS APPENDIX**

None Presented